

Title (en)  
Methane recovery from a landfill gas

Title (de)  
Rückgewinnung von Methan von einem Deponiegas

Title (fr)  
Récupération de méthane d'un gaz de décharge

Publication  
**EP 1811011 A1 20070725 (EN)**

Application  
**EP 06250157 A 20060113**

Priority  
EP 06250157 A 20060113

Abstract (en)  
A process is provided for recovering methane from landfill feed gas and other anaerobic digestors. The process comprising the following steps: firstly treating the feed gas to remove H<sub>2</sub>S; subsequently compressing the gas; and then treating the gas to remove further impurities. Additionally, there is provided a chiller for reducing the temperature of a gas flow. The chiller comprising: a shell arranged to be chilled, a plurality of bores through the shell and through which the gas flows, in use, and forming, together with the shell, a heat exchanger, a tangential inlet to each bore for creating a spiral flow of the gas through the bore, in use. Furthermore, a process is provided for purifying a gas feed using a reversible gas absorber unit comprising two hollow fibre gas/liquid contactors, each of which is arranged to provide a counter-current flow. The process comprising: setting up a partial pressure gradient in the first contactor using a reversible absorber capable of forming an adduct with the gas to be removed, introducing feed gas to the first contactor, forming an adduct of the gas to be absorbed, feeding the adduct to the second contactor, supplying a flushing counter-current flow to the second contactor to liberate the gas, and re-circulating the reversible absorber to the first contactor.

IPC 8 full level  
**C10L 3/08** (2006.01); **C10L 3/10** (2006.01); **F28F 13/12** (2006.01)

CPC (source: EP US)  
**C10L 3/08** (2013.01 - EP US); **C10L 3/10** (2013.01 - EP US); **C10L 3/102** (2013.01 - EP US); **F28D 7/16** (2013.01 - EP US); **F28F 9/0275** (2013.01 - EP US); **F28F 13/06** (2013.01 - EP US); **B01D 2258/05** (2013.01 - EP US); **Y02E 50/30** (2013.01 - EP US)

Citation (applicant)  
RAUTENBACH R; WELSCH K: "Treatment of landfill gas by gas permeation - pilot plant results and comparison to alternatives", DESALINATION, vol. 90, no. 1-3, 1993, pages 193 - 207

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AL BA HR MK YU

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**EP 06250157 A 20060113**; EP 07703745 A 20070109; EP 2007050198 W 20070109; ES 07703745 T 20070109; PL 07703745 T 20070109; US 16081207 A 20070109